REMARKS

This is in response to the Office Action mailed on <u>April 13, 2004</u>, and the references cited therewith.

Claims <u>1-3, 5-6, 9-11, 13, 14, 18-19, 21, 23, and 27</u> are amended; as a result, claims <u>1-31</u> are now pending in this application.

§112 Rejection of the Claims

Claim 1 and the intervening claims were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended claims 1-3, 6, 9-11, and 13 to now recite "transparent proxy," as requested by the Examiner. Accordingly, these rejections are no longer appropriate and should be withdrawn.

§103 Rejection of the Claims

Claims 1-4, 6-7, 9-17 and 20-31 were rejected under 35 USC § 103(a) as being unpatentable over Callaghan et al. (U.S. 2002/0007317) in view of Blum et al. (U.S. 6,182,141) and in view of Shrader et al. (U.S. 6,374,359). It is of course fundamental that in order to sustain an obviousness rejection that each and every step or element in the rejected claims must be taught or suggested in the proposed combination of references.

With respect to the rejection of amended independent claim 1, Applicant notes that there is no teaching in the proposed combination of references, where a state token is generated from policy enforcement data and where that state token is used as an authentication of the client to a transparent proxy. In fact, this is not foreseen or suggested in the Callaghan reference at all in any fashion, because state is defined and used in Callaghan as a simple standard cookie.

This makes sense for Callaghan because in Callaghan a forward proxy is used as an intermediary between two disparate domains. More specifically, the Examiner's attention is directed to paragraphs 53 and 54 of Callaghan where it is the forward proxy that maintains all state information in a state table. Also, see paragraph 46 where the intermediate application is defined as the forward proxy and in paragraph 48 it is stated that the intermediate application exerts a "great deal of control over" the browser (client) and server (external domain).

In fact, since Callaghan is using a forward proxy to achieve its teachings, there is no need and no motivation to authenticate the browser (client) to the intermediate application (forward proxy). This is so, because the client is preconfigured to interact with the forward proxy, which is by definition the interaction that would be used with traditional forward proxies.

Conversely, Applicant's amended independent claim 1 receives a policy state token that is generated by the transparent proxy in response to policy enforcement data. The policy enforcement data acquired from a policy module and the policy module is not the transparent proxy it is a separate and distinct entity that may reside external to the transparent proxy or may reside within the same environment of the transparent proxy. (Note that this is not the case in Callaghan where the intermediate application is the forward proxy.) Since Applicant's invention is utilizing a transparent proxy, the policy state token provides an authentication of the client when that client subsequently interacts with the transparent proxy. This is not disclosed or taught in Callaghan.

Additionally, there is no such teaching or suggestion of this teaching in Blum or Shrader. In Shrader, authentication is achieved directly between two entities there is no teaching of an interposed transparent proxy. Accordingly, Applicant asserts that the rejections with respect to claims 1-13 are no longer appropriate and should be withdrawn.

With respect to rejected claim 14, Applicant notes that Shrader teaches how a user directly interacts with a login server at startup and provides login information. Shrader, col. 5, lines 43-52. The user was not attempting to access an origin server and was redirected based on the identity of the origin server to a specific policy module using a policy module identifier. In Shrader the user selects his login application by affirmatively logging into to it and interacting with it. Authentication is then stored as a cookie for the user to subsequently use.

Conversely, in Applicant's amended independent claim 14, the transparent proxy identifies a policy module based on a policy module identifier which id determined based on the client's request for a resource of an origin server. One skilled in the art, readily appreciates that the technique used and positively recited in amended claim 14 by the Applicant is more advantageous than what is disclosed and taught in Shrader, because with Applicant's independent claim 14, the client simply attempts to directly access its desired resource, authentication selection mechanisms and authentication is then transparently performed via the

transparent proxy process on behalf of the client. The client does not have to identify a login module and does not authenticate to a specific origin server; rather, the client authenticates to the transparent proxy process, and the transparent proxy process vends authentication information on behalf of the origin server. This arrangement as positively recited permits a single login to a single transparent proxy process, which the client is unaware of, and permits the client to interact with a potential plurality of resources and other origin servers with a single authentication, such is not the case and not achievable with the teachings of Shrader alone or in combination with Blum.

Moreover, even assuming that Shrader used a transparent proxy arrangement of Blum, this combination would still not read on Applicant's amended independent claim 14, because there is no teaching in Shrader or Blum, where the resulting transparent proxy would be capable of vending authentication information for a plurality of resources or origin servers. However, this is clearly positively recited in Applicant's amended claim 14, because authentication is between the client and the transparent proxy process and not as is taught in Shrader between a user and a target login process for a target server. If the target login process of Shrader was the transparent proxy of Blum using the teachings of Shrader, then there would be no transparent proxy because the user would know and be configured to directly interact with that transparent proxy; essentially the combined teachings of Shrader and Blum would be using a forward proxy and would negate the teachings of Blum and fall outside the scope of Applicant's invention.

Accordingly, Applicant respectfully requests that the rejections with respect to claims 14-22 should be withdrawn.

With respect to independent claim 23, Applicant's amended claim 23 positively recites client authentication to a transparent proxy where that authentication determines access to a service. Authentication, if at all present, in Callaghan is between the client and a specific target server. Authentication is not taught via a transparent proxy acting as a transparent process between a client and a target server in Callaghan. Moreover, adding Blum with Callaghan results in client authentication to a target server and not to a transparent proxy, even if that authentication is achieved via a Blum transparent proxy; the resulting client authentication is still directed to a target server and not to the proxy itself. Accordingly, the rejections with respect to claim 23 are no longer appropriate and should be withdrawn.

With respect to independent claim 27, Applicant's amended independent claim 27 now positively recites that the policy enforcement data is used for purposes of determining authentication of the client to the transparent proxy. Accordingly, for the reasons stated herein and above with respect to claims 1, 14, and 23, the combinations of Callaghan, Blum, and Shrader standing alone or in various combinations with another fails to teach or suggest each and every step of claim 27. Thus, the rejections with respect to claims 27-31 should be withdrawn.

Claim 5 was rejected under 35 USC § 103(a) as being unpatentable over Callaghan et al. in view of Blum et al. and Shrader et al., and further in view of Birrell et al. (U.S. 5,805,803). Claim 5 is dependent from amended independent claim 1. Therefore, for the amendments and reasons stated above with respect to Applicant's claim 1, the rejection with respect to claim 5 should be withdrawn.

Claim 8 was rejected under 35 USC § 103(a) as being unpatentable over Callaghan et al. in view of Blum et al. and Shrader et al., and further in view of Abdelnur et al. (U.S. 6,212,640). Claim 8 is dependent from amended independent claim 1. Therefore, for the amendments and reasons stated above with respect to Applicant's claim 1, the rejection with respect to claim 8 should be withdrawn.

Claims 18-19 were rejected under 35 USC § 103(a) as being unpatentable over Callaghan et al. in view of Blum et al. and Shrader et al., and further in view of Makarios et al. (U.S. 6,401,125). Claims 18-19 are dependent from amended independent claim 14. Therefore, for the amendments and reasons stated above with respect to Applicant's claim 14, the rejections with respect to claims 18-19 should be withdrawn.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (513) 942-0224 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 13th day of July, 2004.

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